

### **Nutritional Intervention on Malnutrition in 3-6 Years Old Rural Children in Qazvin Province, Iran**

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**Abstract:** Malnutrition is one of the major causes of mortality and morbidity in children. Not only include acute effects on children's health, but also it has long-term effects on their cognitive development and economic growth in the society. Wasting (weight for height with  $Z < -1$ ) is one of the malnutrition indices in children. The aim of this study was to determine the effect of a cooked meal for 175 days on the anthropometric indices of weight, height and weight for height (wasting) of 3-6 years old children in all the rural nursery of Qazvin province, in Iran. In this interventional study, 2385 children (48.8% female and 51.2% male) were recruited. Data were collected by a census in 2010. The children were received a cooked meal based on 360-20 kcal energy, 17% protein, 53% carbohydrate and 30% fat per day for 175 days at lunch time. The anthropometric indices were collected before and after the intervention. The results were analyzed using paired t-test by SPSS V.16 software. Prevalence of wasting (mild and moderate) and (sever malnutrition) after intervention reduced from 14.2 and 0.95-12.6 and 0.5%, respectively ( $p < 0.05$ ). Receiving a cooked meal significantly decreased wasting (15.2-13.2%) in all children ( $p < 0.05$ ). Nutritional intervention with cooked meal for 175 days had significant reduction in wasting in all children.

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**Key words:** Nutritional intervention, wasting, cooked meal, rural nursery, malnutrition, Iran

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